ABSTRACT

[00100] Intercalates, exfoliates thereof, and nanocomposite compositions are formed by intercalating a layered silicate material, *e.g.*, a phyllosilicate, with an oligomer or polymer intercalant that is a reaction product of at least one diamine with at least one dicarboxylic acid, to form a polyamide oligomer containing a xylylenediamine component. The oligomer or polymer may be formed *in-situ* by contacting the layered phyllosilicate with polymerizable monomer reactants using conditions to cause reaction and polymerization in the intercalating composition and intercalation of the resulting oligomer and/or polymer, between platelet layers of the phyllosilicate. An amine functionality of the oligomer or polymer is protonated for ion-exchange with interlayer cations of the phyllosilicate to bond the intercalant to the phyllosilicate platelet, at the protonated amine, at a negative charge site previously occupied by the interlayer cations.